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GOVERNMENT DOCUMENTS
COLLECTION

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Bureau of Family and Community Health
School Health Unit

**Advisory on Disposal of Infectious or Physically Dangerous Medical Waste
Generated in School Settings**

December 1992

The purpose of this advisory is to clarify the responsibilities of schools for the disposal of infectious or physically dangerous medical waste. In Massachusetts this waste is regulated by 105 CMR 480.000: Storage and Disposal of Infectious or Physically Dangerous Medical or Biological Waste, State Sanitary Code, Chapter VIII.

These regulations define (1) what is infectious and physically dangerous medical waste, (2) who is a generator of such waste, and (3) how infectious and physically dangerous medical waste must be handled.

This advisory deals only with those categories of infectious or physically dangerous medical waste which normally would be expected to be found in a school setting. In those circumstances where a waste is within the categories noted in Section I below, the procedures for disinfection and disposal provided in Sections II and III must be followed.

I. Categories: A major but not controlling consideration for the inclusion of an article as an infectious or physically dangerous medical waste is that the article had been used for a medical purpose. There may be some exceptions such as culture plates and human blood used in the classroom for demonstration and experimentation purposes.

Examples of infectious or physically dangerous medical waste which may be found in school settings include:

- A. **Sharps:** Discarded medical articles such as needles, syringes, scalpel blades, razor blades, lancets, broken medical glassware and pasteur pipettes.
- B. **Blood and Blood Products:** Includes discarded bulk human blood and blood products in a free-draining liquid state, body fluids contaminated with visible blood and materials saturated and dripping with blood.
- C. **Cultures and Stocks of Infectious Agents and Associated Biologicals:** All discarded live and attenuated vaccines intended for human use and all discarded culture plates that may have been used for demonstration in science classes. (See attached regulations for complete definitions.)

Please note:

- 1. While it is unlikely that biological effluent, stocks of infectious agents or contaminated animal carcasses may be encountered in a school setting, the enclosed regulations define the above and apply to their disposal.
- 2. Band-aids and other dressings are included in the definition of infectious or physically dangerous medical waste only if they are saturated and dripping with blood. It should be noted that band-aids/dressings which are not saturated with blood, as well as articles that are used for personal hygiene such as sanitary napkins or tampons, should be handled with care and caution but may be disposed of as regular solid waste.
- 3. While the non-medical use of sharps excludes the need to handle and dispose of these articles in accordance with the regulations, care must be taken to dispose of them in a safe manner to prevent cuts and puncture wounds.

II. Procedures for Handling Infectious and Physically Dangerous Medical Wastes in School Settings:

Follow Universal Precautions. This is an infection control concept in which all human blood and certain body fluids are treated as if they are infectious for bloodborne pathogens. Always wear latex gloves while handling infectious or physically dangerous medical waste.

- A. **Sharps:** Sharps must be segregated from other waste and aggregated in leak proof, rigid, puncture-resistant, shatter proof containers immediately after use. Do not recap or break needles from syringes before placing in containers. These containers must be red, distinctively marked with the biohazard symbol and labeled to indicate that they contain sharp waste capable of inflicting punctures or cuts. Both containers and biohazard labels are available through medical supply houses.
- B. **Free-draining Blood and Blood Products:** Free-draining blood and blood products shall be stored at all times in leak proof containers that are sealed. Unless restricted by the local sewer department or the local board of health, these wastes may be disposed into a sanitary sewage system.
- C. **Medical Waste Spills:** Clean up blood spills with a 1:10 household bleach (sodium hypochlorite) solution prepared within twenty-four hours before use, pouring the solution around the periphery of the spill and onto the spill itself. ~~When a bleach solution may not be used (as on a carpet) use a chemical disinfectant which is EPA (Environmental Protection Agency) registered as indicated on the label. Follow the manufacturer's instructions for appropriate use and dilution.~~
- D. **Other Categories of Infectious Waste:** Other categories of infectious waste which may be found in a school setting and not described in Section II A-C must be placed in double non-permeable 3 mil or equivalent polyethylene bags. The bags must be securely sealed to eliminate leaks. These bags must be red and marked with the biohazard symbol.

Note: Small amounts of infectious and physically dangerous medical waste may be disinfected by saturation with a 1:10 household bleach (sodium hypochlorite) solution. Bleach solution should be fresh (prepared within twenty-four hours before use). Place treated waste in double bags, (polyethylene bags or 3 mil non-permeable), which should not be red, for disposal with the regular trash. Mark "DISINFECTED MEDICAL WASTE" and the name of the school.

III. Procedures for Removal from the School and Disposal of Infectious and Physically Dangerous Medical Waste.

- A. Disposal of infectious and physically dangerous medical waste may be accomplished by various means including chemical, steam, or thermal disinfection or by incineration. Sharps, if treated by any method other than incineration must be rendered physically non-hazardous by grinding prior to ultimate disposal. Incineration must occur in a Type IV incinerator which has been approved by the Massachusetts Department of Environmental Protection. (Consult the MDEP for further information.)
- B. The school's responsibilities include:
 - 1. The preparation of the infectious and physically dangerous medical waste in an acceptable manner; (See Section II.)
 - 2a. The provision of contractual arrangements for the ultimate disposal of waste which is ~~not~~ ~~disinfected on-site~~ at the school. This may be accomplished through a waste disposal company capable of handling infectious waste or by agreement through a visiting nurse agency, hospital or physician's office or other agency;

OR

- 2b. In the case of infectious or physically dangerous medical waste which is disinfected and disposed of on-site, a log must be kept in a bound book with the date and signature of the individual who disinfected the waste. (Example: "Date: Bloody dressing disinfected by bleach solution.") The waste then should be double-bagged and disposed of with the general waste.

NOTE: The removal of infectious or physically dangerous medical waste from any site of generation, including schools, requires that the generator prepare a manifest* which tracks the waste from the point of generation through the point of ultimate disinfection and disposal. It is also important that the school district ensure that the waste is being transported to an appropriate facility for disinfection and disposal. Consult the attached regulations for specific regulations relative to this process and an example of a manifest.

* See attached sample.

References:

1. 105 CMR 480.000 Massachusetts State Sanitary Code Chapter VIII: Storage and Disposal of Infected or Physically Dangerous Medical or Biological Waste. Department of Public Health, August 1989.
2. "Updated Medical Policy Guidelines: Children and Adolescents with HIV Infection/ AIDS in School Settings." Commonwealth of Massachusetts, Board of Education, August 1991.
3. "Recommendations for Prevention of HIV Transmission in Health-Care Settings," Morbidity and Mortality Weekly Report Supplement. U.S. Centers for Disease Control, 1987; 36:9S-12S.
4. Occupational Safety and Health Administration (OSHA): "Occupational Exposure to Bloodborne Pathogens; Final Rule", 6 December 1991; 56:64176-64182.

Biohazard Symbol



Biohazard symbol labels, red bags, and red containers for disposal of sharps are available through medical supply houses.

Attachments:

105 CMR 480.000: Storage and Disposal of Infectious or Physically Dangerous Medical or Biological Waste

Example of a Manifest

For additional information please call the Department of Public Health School Health Advisors:

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